



# **UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office**

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| APPLICATION NO.                              | FILING DATE | FIRST NAMED INVENTOR |   | AT                | TORNEY DOCKET NO. |
|--|-------------|----------------------|---|-------------------|-------------------|
| 09/163,259                                   | 09/29/98    | ADAMS                |   | F 4               | 167-13            |
| Г  |             |                      | コ | EXAMINER          |                   |
| PM92/0209<br>RANDY G. HENLEY                 |             |                      | • | MCALLISTER,S      |                   |
| OTIS ELEVAT                                  | OR COMPANY  |                      |   | ART UNIT          | PAPER NUMBER      |
| PATENT DEPAI<br>TEN FARM SPI<br>FARMINGTON ( | RINGS       |                      | · | 2167 DATE MAILED: | 69                |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

02/09/01

## Office Action Summary

Application No. 09/163,259 Applicant(s)

Adams et al

Examiner

Steven B. McAllister

Group Art Unit 2167



| XI Responsive to communication(s) filed on Nov 29, 2000   | •  |  |  |  |
|---|--|--|--|--|
| XI This action is <b>FINAL</b> .  |  |  |  |  |
| Since this application is in condition for allowance except to<br>in accordance with the practice under Ex parte Quayle, 19   |  |  |  |  |
| A shortened statutory period for response to this action is set is longer, from the mailing date of this communication. Failur application to become abandoned. (35 U.S.C. § 133). Exten 37 CFR 1.136(a). | e to respond within the period for response will cause the |  |  |  |
| Disposition of Claims   |  |  |  |  |
|   | is/are pending in the application.                         |  |  |  |
| Of the above, claim(s) 7 and 9-18   | is/are withdrawn from consideration.                       |  |  |  |
| Claim(s)  |  |  |  |  |
|   |  |  |  |  |
| Claim(s)  |  |  |  |  |
| ☐ Claims are subject to restriction or election requ  |  |  |  |  |
| Application Papers  |  |  |  |  |
| ☐ See the attached Notice of Draftsperson's Patent Draw   | ing Review, PTO-948.                                       |  |  |  |
| ☐ The drawing(s) filed on is/are objection  | ected to by the Examiner.                                  |  |  |  |
| ☐ The proposed drawing correction, filed on   | is _approved _disapproved.                                 |  |  |  |
| ☐ The specification is objected to by the Examiner.   |  |  |  |  |
| $\hfill\Box$ The oath or declaration is objected to by the Examiner.  |  |  |  |  |
| Priority under 35 U.S.C. § 119  |  |  |  |  |
| Acknowledgement is made of a claim for foreign priorit  | ty under 35 U.S.C. § 119(a)-(d).                           |  |  |  |
| ☐ All ☐ Some* ☐ None of the CERTIFIED copies  | of the priority documents have been                        |  |  |  |
| ☐ received.   |  |  |  |  |
| received in Application No. (Series Code/Serial N   |  |  |  |  |
| $\square$ received in this national stage application from the  | ne International Bureau (PCT Rule 17.2(a)).                |  |  |  |
| *Certified copies not received:   |  |  |  |  |
| <ul> <li>Acknowledgement is made of a claim for domestic price</li> </ul>   | ority under 35 U.S.C. § 119(e).                            |  |  |  |
| Attachment(s)   |  |  |  |  |
| ☐ Notice of References Cited, PTO-892   |  |  |  |  |
| ☐ Information Disclosure Statement(s), PTO-1449, Paper  | No(s)  |  |  |  |
| ☐ Interview Summary, PTO-413  | 040  |  |  |  |
| ☐ Notice of Draftsperson's Patent Drawing Review, PTO-  | <b>340</b>   |  |  |  |
| ☐ Notice of Informal Patent Application, PTO-152  |  |  |  |  |
| SEE OFFICE ACTION OF  | N THE FOLLOWING PAGES                                      |  |  |  |
|   |  |  |  |  |

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#### **DETAILED ACTION**

#### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aulanko et al (EP0710618) in view of Pearson (1035230).

Aulanko et al disclose a hoistway (col. 2, lines 58-9) with walls (col. 3, lines 50-55); an elevator car 1; a counterweight 2; a drive motor 6 between the elevator car and side wall which couples the car and counterweight via the rope 3. Aulanko et al do not disclose a flat drive and suspension rope. Pearson discloses a flat drive and suspension rope 12. It would have been obvious to one of ordinary skill in the art to modify the apparatus of Aulanko et al by using flat rope of Pearson in order to produce a large friction surface.

3. Claims 2-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aulanko et al in view of Pearson as applied to claim 1 above, and further in view of Olsen.

In addition to all elements of claim 1, Aulanko et al in view of Pearson discloses first and second columns 11, 11a; and a support member between them 20. Aulanko et al in view of Gale do not disclose that the columns are on opposite side of the hoistway. Olsen disclose columns 28

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on opposite sides of the hoistway. It would have been obvious to one of ordinary skill in the art to further modify the columns of Aulanko et al by moving them to opposite sides of the shaft as taught by Olsen in order to facilitate use of the columns for guide both the elevator car and counterweight, thereby providing a more compact structure and saving on the cost of the extra beam required by Aulanko et al.

As to claim 3, Aulanko et al disclose a counterweight 2 below the drive sheave 7 and between the car 1 and the wall.

As to claims 4 and 5, Aulanko et al disclose counterweight sheave 9 on top of the counterweight and two elevator sheaves 4 under the elevator, the elevator rope having both ends 13, 14 terminated in the top portion of the hoistway, the rope extending down from the first end 13, looping the counterweight sheave, going up and looping the drive sheave 7, going down under the car and looping each car sheave and terminating at the second end 14.

As to claim 6, Aulanko et al disclose the first end 13 terminated to the support member 20 (see Fig. 1).

As to claim 8, Olsen discloses that the first and second columns have first and second vertical guide members 36 corresponding to the path of the elevator; and that the elevator has opposing surfaces 35 shaped to be moveably engageable with the elevator guide surfaces.

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### Response to Arguments

4. Applicant's arguments filed 11/29/00 have been fully considered but they are not persuasive.

Regarding applicant's argument that motivation is lacking to combine Aulanko et al and Pearson, the motivation is found in Pearson in column 2, lines 85-95.

Regarding applicant's argument that the combination of Aulanko et al and Pearson would destroy the function of Aulanko et al, it is noted that efficient use of the cross-section of the shaft is one goal (pg. 2, col. 2, lines 14-16 of Aulanko et al), there are several design goals (pg. 2, cols. 1 and 2 generally). While use of a flat rope such a taught by Pearson may require slightly more room due to the greater width of the rope, the overall increased efficiency in utilizing the shaft is maintained.

Regarding applicant's arguments that a wire rope is preferable to a flat steel strap, it is noted that the references used in a rejection need not disclose the optimum solution, but simply one capable of functioning. It is not necessary to determine that a flat steel strap is equal or better than a wire rope in order to properly maintain the rejection.

#### Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. McAllister whose telephone number is (703) 308-7052.

Steven B. McAllister

February 6, 2001

ROBERT P. OLSZEWSKI
SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 3600 2 (00)